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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/574,042

Applicant(s)

SWOBODA ET AL.

Examiner

KHALID ABDALLA

Art Unit

2475

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-22 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 08/30/2006
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4,6-10 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bohrer et al (US-PAT-NO:7009995) in view of Lohr et al (US-PAT-NO:7277675).

Regarding claim1, Bohrer et al discloses a serial data bus having a data line for the transmission of electrical signals representing bit states and having a plurality of multi-master subscribers (a serial bus system that is multi-master capable, i.e., a plurality of CAN nodes can simultaneously request the bus see col1:1 lines 24-26) between which messages can be exchanged via the data line in an event-driven manner according to the broadcast principle (the identifier also establishes the priorities of the message. The priorities are issued in the system design through corresponding binary values and are not dynamically changeable. The identifier having the lowest binary number has the highest priority. Conflict in bus access is resolved using bit-by-bit arbitration regarding the respective identifiers, in that each station see col: 1 lines 32-39).

Bohrer et al does not discloses the serial data bus comprising:

at least two subscribers each including a transmission/reception head which can be inductively coupled to the data line and via which electrical signals can be tapped

contactlessly from the data line and transmitted onto it, and in that an amplifier which receives electrical signals that have been transmitted inductively onto the data line by the at least two subscribers, and couples them back into the data line after their amplification, is DC-connected to the data line. Lohr et al from the same or similar field of endeavor teach discloses the serial data bus comprising:

at least two subscribers each including a transmission/reception head which can be inductively coupled to the data line and via which electrical signals (FIG. 4 shows an exemplary array with series resonance circuits. In the transmitter, an AC voltage source with an integrated control element (1) supplies the inductive coupling elements that consist each of a primary winding (2, 3, 4) and a secondary winding (22, 23, 24). Here, several primary windings are coupled to one respective transmitter whilst the secondary windings are associated with independent receivers in loose mechanical contact with the transmitters see coln:4 lines 53-60) can be tapped contactlessly from the data line and transmitted onto it, and in that an amplifier which receives electrical signals that have been transmitted inductively onto the data line by the at least two subscribers (the aspect that the inductive transmission elements are completed by appropriate capacitances connected in series, to form parallel resonance circuits. This completion may be optionally on the primary side, the secondary side or even on both sides of the inductive coupling elements see coln:2 lines 37-42)

and couples them back into the data line after their amplification, is DC-connected to the data line (In that array several primary windings are coupled to one respective transmitter whilst the secondary windings are associated with independent receivers in

loose mechanical contact with the transmitters. In order to achieve a circuit capable of resonating in parallel, the inductance is supplemented optionally on the primary winding and/or on the secondary winding to form a parallel resonance circuit with appropriate capacitances see coln:4 lines 20-27) . Thus it would have been obvious to one of ordinary skill in the art to implement the method of Lohr et al in the system of Bohrer et al .The method of Bohrer et al can be implemented on any type of method, at least two subscribers each including a transmission/reception head which can be inductively coupled to the data line and via which electrical signals can be tapped contactlessly from the data line and transmitted onto it, and in that an amplifier which receives electrical signals that have been transmitted inductively onto the data line by the at least two subscribers , and couples them back into the data line after their amplification, is DC-connected to the data line which is taught by Lohr et al with a motivation in order to provide contact less transmission of electrical signals.

Regarding claim2, note that Bohrer discloses the serial data bus, characterized in that the messages contain priority bits by the reception of which (the identifier also establishes the priorities of the message. The priorities are issued in the system design through corresponding binary values and are not dynamically changeable. The identifier having the lowest binary number has the highest priority. Conflict in bus access is resolved using bit-by-bit arbitration regarding the respective identifiers, in that each station see col: 1 lines 32-39), in the event of simultaneous message transmissions by a plurality of subscribers subscriber can determine whether it has priority to transmit data bits by means of a comparison with priority bits which it itself transmits (A comparison

with container messages CT of dispatcher station 2 in accordance with FIG. 7 indicates that the message having address 0/1 may not be read by transceiver station 4, i.e., this message having address 0/1 is transmitted only with the assistance of interface circuit 50 of this interface module 18 to the next user of this serial ring bus see co1:9 lines 37-42).

Regarding claim3, note that Bohrer discloses the serial bus (a serial bus system that is multi-master capable see co1:1 line 24), characterized in that the subscriber not have priority to transmit data bits when it receives a signal that represents a dominant logical bit state and it approximately simultaneously transmits a signal that represents a recessive logical bit state (In this competition among stations, all of the "losers" automatically become receivers of the message having the highest priority and only make the attempt once again to transmit when the bus becomes free. Upon the acceptance check occurring all receiver stations in the CAN network, after correctly receiving the message based on the identifier, determine whether the data received are relevant for it or not (selecting)see co1:1 lines 39-46).

Regarding claim4, note that Bohrer discloses the serial data bus, wherein the signal representing the dominant bit state is a current pulse and the signal representing the recessive bit state is the absence of a current pulse (For the synchronization of the decentralized, lower-level closed-loop control circuits in converters 52 of stations 2, 4, and 6, the bus cycle time must have a defined relationship with respect to the time slices of the individual closed-loop controllers. For the time slices of converter 52, the following determination applies: current control in time slice T.sub.0 speed control in

time slice 2T.sub.0 position control in time slice 4T.sub.0, Time slice T.sub.0 is equal to the reciprocal value of the pulse frequency and is set in converter 52 by the selection of pulse frequency see col: 8 line 65-67 and col: 9 lines 1-9).

Regarding claim 6, note that Bohrer discloses the serial data bus, wherein message priority can be determined by the logic unit (the identifier also establishes the priorities of the message. The priorities are issued in the system design through corresponding binary values and are not dynamically changeable. The identifier having the lowest binary number has the highest priority. Conflict in bus access is resolved using bit-by-bit arbitration regarding the respective identifiers, in that each station see col: 1 lines 32-39).

Regarding claim 7, note that Bohrer the serial data bus, wherein after reception of the electrical signals from one of the at least two subscribers the amplified signals can be transmitted onto the data line by the amplifier within approximately 25-50% of a cycle length which lies at least between two signals transmitted onto the data line by one of the at least two subscribers (The length of each transmission segment in plastic optical fibers can be as much as 60 m, and in the glass optical fiber up to 250 m. The maximum number of users for each fiber-optic ring is 254. In addition, repeat amplifiers are arranged in the slaves so that signal distortions arising as a result of the optical transmission cannot accumulate see col: 2 lines 20-27).

Regarding claim 8, note that Bohrer disclose the serial data bus, wherein the messages have the format established in the CAN standard (The number of users in one CAN bus system is theoretically limited by the number of available identifiers (2032

in standard format and 0.510.sup.9 in expanded format) see col:1 lines 56-65).

Regarding claim9 Lohr teach the serial data bus, wherein one of the at least two subscribers is arranged so that it can travel along the data line (a magnetic path of the inductive coupling element, which is not yet used for the transmission of energy, is utilized for the transmission of further information. This may be the exterior surface of the core, for example, with the magnetic flux then persisting via the environment of the core through the air. In the event of a multi-branch core, the magnetic flux may take place via the two outside branches or further branches see coln:2 lines 51-58). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Lohr et al in the system of Bohrer et al .The method of Bohrer et al can be implemented on any type of method, wherein one of the at least two subscribers is arranged so that it can travel along the data line which is taught by Lohr et al with a motivation in order to provide contact less transmission of electrical signals.

Regarding claim10 Lohr et al teach a motion system having a first part and a second part, which is arranged mobile relative to the first part, wherein subscribers of a data bus are arranged statically on the two parts (A pc board containing conductor structures (60, 61) for capacitive signal transmission is disposed on each side between the two halves of the core. These pc boards are spaced from each other by a small distance so that electrical signals can be transmitted between the transmitter side and the receiver side due to the high capacitance so created see coln:4 lines 44-50) Thus it would have been obvious to one of ordinary skill in the art to implement the method of Lohr et al in the system of Bohrer et al .The method of Bohrer et al can be implemented on any type

of method, a first part and a second part, which is arranged mobile relative to the first part, wherein subscribers of a data bus are arranged statically on the two parts which is taught by Lohr et al with a motivation in order to provide contact less transmission of electrical signals.

Regarding claim18, Bohrer et al discloses a serial method for the event-driven transmission of messages between a plurality of multi-master subscribers according to the broadcast principle via a data bus (a serial bus system that is multi-master capable, i.e., a plurality of CAN nodes can simultaneously request the bus see co1:1 lines 24-26) Bohrer et al does not discloses the method comprising the steps of:

contactless transmission of an electrical signal by a subscriber onto a data line of the data bus via a transmission/reception head, coupled inductively to the data line, of the subscriber; reception of the electrical signal attenuated by the inductive transmission by an amplifier DC-connected to the data line; amplification of the received signal in the amplifier; coupling of the amplified signal onto the data line; and,

reception of the amplified signal transmitted onto the data line by a transmission/reception head, coupled inductively to the data line, of another subscriber. Lohr et al from the same or similar field of endeavor teach the method comprising the steps of:

contactless transmission of an electrical signal by a subscriber onto a data line of the data bus via a transmission/reception head, coupled inductively to the data line, of the subscriber (FIG. 4 shows an exemplary array with series resonance circuits. In the transmitter, an AC voltage source with an integrated control element (1) supplies the

inductive coupling elements that consist each of a primary winding (2, 3, 4) and a secondary winding (22, 23, 24). Here, several primary windings are coupled to one respective transmitter whilst the secondary windings are associated with independent receivers in loose mechanical contact with the transmitters see coln:4 lines 53-60) reception of the electrical signal attenuated by the inductive transmission by an amplifier DC-connected to the data line; amplification of the received signal in the amplifier; coupling of the amplified signal onto the data line (FIG. 5 illustrates a typical array of a circuitry on the secondary side in correspondence with the present invention. Here, the secondary winding (22) serves to couple out the electrical signals. The corresponding parallel resonance capacitance--which is illustrated here for the case of parallel resonance as an example--is realized with the capacitor (32).see coln:5 lines 1-7) ; and reception of the amplified signal transmitted onto the data line by a transmission/reception head, coupled inductively to the data line, of another subscriber (In that array several primary windings are coupled to one respective transmitter whilst the secondary windings are associated with independent receivers in loose mechanical contact with the transmitters. In order to achieve a circuit capable of resonating in parallel, the inductance is supplemented optionally on the primary winding and/or on the secondary winding to form a parallel resonance circuit with appropriate capacitances see coln:4 lines 20-27). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Lohr et al in the system of Bohrer et al .The method of Bohrer et al can be implemented on any type of method taught by Lohr et al with a motivation in order to provide contact less transmission of electrical signals.

Regarding claim19, note that Bohrer discloses the method, such that when a subscriber simultaneously transmits a message and receives a message (the identifier also establishes the priorities of the message. The priorities are issued in the system design through corresponding binary values and are not dynamically changeable. The identifier having the lowest binary number has the highest priority. Conflict in bus access is resolved using bit-by-bit arbitration regarding the respective identifiers, in that each station see col: 1 lines 32-39), it determines whether it has the priority to transmit data bits by means of a comparison of received priority bits and self- transmitted priority bits transmits (A comparison with container messages CT of dispatcher station 2 in accordance with FIG. 7 indicates that the message having address 0/1 may not be read by transceiver station 4, i.e., this message having address 0/1 is transmitted only with the assistance of interface circuit 50 of this interface module 18 to the next user of this serial ring bus see co1:9 lines 37- 42).

Regarding claim20, note that Bohrer disclose the method, such that a subscriber does not have the priority (Therefore, CAN permits the realization of need-dependent bus access, proceeding, on the basis of the bit-by-bit arbitration, in a non-destructive manner through message priority. A synchronization mechanism is not supported by the CAN and the data transmission speed is too low for a process in which a plurality of sequences of motions proceed synchronously, one after the other see coln: 2 lines 55- 65) to transmit data bits when it receives a signal that represents a dominant logical bit state and it approximately simultaneously transmits a signal that represents a recessive logical bit state. (the identifier also establishes the priorities of the message. The

priorities are issued in the system design through corresponding binary values and are not dynamically changeable. The identifier having the lowest binary number has the highest priority. Conflict in bus access is resolved using bit-by-bit arbitration regarding the respective identifiers, in that each station see col: 1 lines 32-39).

Regarding claim 21, note that Bohrer disclose The method such that the signal representing the dominant bit state is a current pulse and the signal representing the recessive bit state is the absence of a current pulse (repeat amplifiers are arranged in the slaves so that signal distortions arising as a result of the optical transmission cannot accumulate. The active signal conditioning and clock-pulse regeneration is achieved with the assistance of phase-locking loops. By using fillers and bit stuffing, it is assured that a sufficient quantity of signal edges is contained in the data stream. As a result, it is made possible for the phase-locking loops always to remain "locked in place," i.e., bit-synchronous see coln:2 lines 25-33).

3. Claims 5 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bohrer et al (US-PAT-NO:7009995) in view of Lohr et al (US-PAT-NO:7277675) as applied in claims 1 or 10 above and further in view of Modery et al (US-PAT-NO:4766547).

Regarding claim 5 Lohr et al discloses the serial data bus, wherein the transmission/reception head comprises:
a transmission coil ;a reception coil a transmission module by which electrical signals, which can be applied to the transmission coil ;(FIG. 4 shows an exemplary array with series resonance circuits. In the transmitter, an AC voltage source with an integrated

control element (1) supplies the inductive coupling elements that consist each of a primary winding (2, 3, 4) and a secondary winding (22, 23, 24). Here, several primary windings are coupled to one respective transmitter whilst the secondary windings are associated with independent receivers in loose mechanical contact with the transmitters see coln:4 lines 53-60).

Lohr et al and Boher et al can be generated from digital information;
a reception module by which digital information can be generated from electrical signals that can be tapped by the reception coil; and, a logic unit, connected to the transmission module and the reception module, for collating and evaluating messages from digital information received by the reception module and for generating digital information for the transmission module. Modery et al from the same or similar endeavor teach can be generated from digital information;

a reception module by which digital information can be generated from electrical signals that can be tapped by the reception coil (The vehicle drive commands received from the CPUM 80 through the D/A digital-to-analog converter 83 are utilized to control a pulse width modulator DC converter incorporated within the MDM 82. The MDM 82 includes the electronic circuits for conversion of the three-phase AC input voltage received via the bus 56 into pulse width modulated (PWM) high-voltage DC for powering the vehicle drive motor see coln:12 lines 63-67 and coln:13 lines 1-4) and, a logic unit, connected to the transmission module and the reception module, for collating and evaluating messages from digital information received by the reception module and for generating digital information for the transmission module (the system provides digital speed

control to provide a desired acceleration/deceleration curve. This control of the vehicle speed enables the vehicles to be moved at optimal speeds through the system while preventing lurches and other sudden variations in the vehicle speed which might displace or damage the load. Further preferably, the speed control is responsive to the load weight and/or load type on each vehicle to effect further optimization of speed see coln: 14 lines 53-61). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al. The method of Lohr et al and Bohrer et al can be implemented on any type of method which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Regarding¹¹ Bohrer et al and Lohr et al disclose the motion system (A pc board containing conductor structures (60, 61) for capacitive signal transmission is disposed on each side between the two halves of the core. These pc boards are spaced from each other by a small distance so that electrical signals can be transmitted between the transmitter side and the receiver side due to the high capacitance so created see coln:4 lines 44-50).

Bohrer et al and Lohr et al disclose the motion system adapted for design as a track-bound transport system having a track and a plurality of vehicles that travel along the track, the transport system comprising, for communication between the vehicles, a data bus whose data line is arranged along the track of the transport system and whose subscribers are the vehicles. Modery et al from the same or similar field or endeavor

teach the motion system adapted for design as a track-bound transport system having a track and a plurality of vehicles that travel along the track (a conveyor system with improved computer and communications control to constantly monitor the position of vehicles within the system and to deliver vehicles to desired destinations. Specifically, the system includes a conveyor track network, a communication bus extending along the track network, a plurality of self-propelled vehicles confined to the network and coupled to the communication bus, and a computer control system coupled to the communication bus see coln1 lines 60-67) ;

the transport system comprising, for communication between the vehicles, a data bus whose data line is arranged along the track of the transport system and whose subscribers are the vehicles (The vehicles are capable of identifying their location within the network, and the computer is capable of polling the individual vehicles to acquire this location information. The computer makes routing decisions (1) to control switching stations and thereby deliver vehicles to their desired destinations and (2) to prevent collisions between vehicles see coln:2 lines 1-7) . Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method the motion system adapted for design as a track-bound transport system having a track and a plurality of vehicles that travel along the track the transport system comprising, for communication between the vehicles, a data bus whose data line is arranged along the track of the transport system and whose subscribers are the vehicles which is taught by Modery et al with a motivation in order

to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Regarding claim12 Modery et al teach the motion system, wherein at least one vehicle comprises a vehicle control connected to the transmission/reception head (selected vehicles include one or more sensors for measuring one or more desired characteristics (e.g. weight, temperature, or pressure) of the material transported by the vehicle and a system for communicating this information to a central computer see coln:2 lines 29-34). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method the motion system, wherein at least one vehicle comprises a vehicle control connected to the transmission/reception head which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Regarding claim13. Modery et al teach the motion system, wherein the amplifier is connected to a control unit for controlling the vehicles along the data bus (selected vehicles include one or more sensors for measuring one or more desired characteristics (e.g. weight, temperature, or pressure) of the material transported by the vehicle and a system for communicating this information to a central computer see coln:2 lines 29-34). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method wherein the

amplifier is connected to a control unit for controlling the vehicles along the data bus which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Regarding claim14 note that Bohrer et al the motion system, wherein the amplifier is connected to the control unit via a CAN bus (The number of users in one CAN bus system is theoretically limited by the number of available identifiers (2032 in standard format and 0.510.sup.9 in expanded format) see co1:1 lines 56-65).

Regarding claim15. Modery et al teach the motion system being subdivided into a plurality of segments which respectively comprise a data bus having a control unit, and in that the control unit for the individual segments is connected to a superordinate central control (selected vehicles include one or more sensors for measuring one or more desired characteristics (e.g. weight, temperature, or pressure) of the material transported by the vehicle and a system for communicating this information to a central computer see coln:2 lines 29-34). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method the motion system being subdivided into a plurality of segments which respectively comprise a data bus having a control unit, and in that the control unit for the individual segments is connected to a superordinate central control which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor

system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Regarding claim 16 Modery et al teach The motion system, wherein the track for the vehicles extends over a plurality of segments so that vehicles can travel over segment boundaries (The vehicles are capable of identifying their location within the network, and the computer is capable of polling the individual vehicles to acquire this location information. The computer makes routing decisions (1) to control switching stations and thereby deliver vehicles to their desired destinations and (2) to prevent collisions between vehicles see coln:2 lines 4-7) Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method the motion system, wherein the track for the vehicles extends over a plurality of segments so that vehicles can travel over segment boundaries which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Regarding claim 17 Modery et al teach the motion system being designed as an overhead conveyor system for transporting objects (a conveyor system with improved computer and communications control to constantly monitor the position of vehicles within the system and to deliver vehicles to desired destinations. Specifically, the system includes a conveyor track network, a communication bus extending along the track network, a plurality of self-propelled vehicles confined to the network and coupled

to the communication bus, and a computer control system coupled to the communication bus see coln1 lines 60-67) . Thus it would have been obvious to one of ordinary skill in the art to implement the method of Modery et al in the system of Lohr et al and Bohrer et al .The method of Lohr et al and Bohrer et al can be implemented on any type of method the motion system being designed as an overhead conveyor system for transporting objects which is taught by Modery et al with a motivation in order to provide a computer controlled conveyor system capable of routing the vehicles to selected destination and preventing intervehicle collision.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(US –PAT-NO: 4085403), (Meier et al) discloses, Combined on-board remote control energy supply Distribution and signaling system, particularly for automotive vehicles.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHALID ABDALLA whose telephone number is (571)270-7526. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571-272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. A./

Examiner, Art Unit 2475

/DANG T TON/

Supervisory Patent Examiner, Art Unit 2475/D. T. T./

Supervisory Patent Examiner, Art Unit 2475